

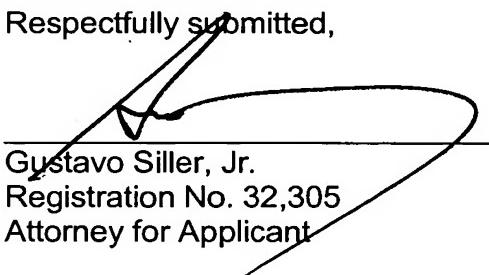
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type knob, a second actuator for loading an external force on the rotary knob, a control unit for controlling these first and second actuators, a guide member for defining an operation direction of the joystick type knob, first detection means for detecting an operation state of the joystick type knob, and second detection means for detecting an operation state of the rotary knob. In an onboard instrument control device, the built-in manual input device is contained in a box and the joystick type knob and the rotary knob and push button switches used for instrument selection are disposed on an upper surface of the box.

REMARKS

Applicant has rewritten Claims 1-5 and the Abstract. The changes from the previous version to the rewritten version are shown in attached Appendix A, with strikethrough for deleted matter and underlines for added matter.

Respectfully submitted,


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APPENDIX A
Force Feedback Functioning Manual Input Device and Onboard
Instrument Control System Having It
Attorney Docket No. 9281-4255
Inventor Mikio Onodera et al.

In the Claims

Please amend Claim 1 as follows:

1. (Amended) A manual input device provided with comprising a joystick type knob and a rotary knob that are disposed coaxially, one a first actuator for leading to load an external force on the joystick type knob, one a second actuator for leading to load an external force on the rotary knob, a first detection means for detecting detector to detect an operation state of the joystick type knob, and a second detection means for detecting detector to detect an operation state of the rotary knob.

Please amend Claim 2 as follows:

2. (Amended) The manual input device according to claim 1, wherein the manual input device is additionally provided with further comprising a guide member for defining to define an operation direction of the joystick type knob.

Please amend Claim 3 as follows:

3. (Amended) The manual input device according to claim 1, wherein further comprising a control unit that controls the first actuator based on a signal supplied from the first detection means detector and controls the second actuator based on a signal supplied from the second detection means is detector, the control unit provided combinedly in a box that constitutes houses the manual input device.

Please amend Claim 4 as follows:

4. (Amended) The manual input device according to claim 1, wherein further comprising a control unit that controls the first actuator based on a signal supplied from the first detection means detector and controls the second actuator based on a signal supplied from the second detection means is detector, the control unit provided in an external apparatus.

Please amend Claim 5 as follows:

5. (Amended) An onboard instrument control device having comprising:
electric instrument selection switches for selecting to select an electric
instrument ~~the~~ having a function of which is to be controlled; and

a manual input device for controlling to control various functions of the
electric instrument selected by use of one of the selection switches, wherein the
~~onboard instrument control device is provided with the manual input device~~
~~having~~ comprising a joystick type knob and a rotary knob that are disposed coaxially,
a first actuator for loading to load an external force on the joystick type knob, a
second actuator for loading to load an external force on the rotary knob, a first
detection means for detecting ~~detector to detect~~ an operation state of the joystick
type knob, and second detection means for detecting ~~detector to detect~~ an operation
state of the rotary knob.

In the Abstract

Please amend the Abstract as follows:

(Amended) ABSTRACT OF THE DISCLOSURE

The invention provides a small-sized and low-cost manual input device
excellent in operability and multifunctionality, and provides an onboard instrument
control device having the abovementioned manual input device. A manual input
device is provided with a spherical bearing, a joystick type knob held swingably on
the spherical bearing, a rotary knob disposed coaxially with the joystick type knob, a
first actuator for loading an external force on the joystick type knob, a second
actuator for loading an external force on the rotary knob, a control unit for controlling
these first and second actuators, a guide member for defining an operation direction
of the joystick type knob, first detection means for detecting an operation state of the
joystick type knob, and second detection means for detecting an operation state of
the rotary knob. ~~An~~ In an onboard instrument control device is structured so that, the
built-in manual input device is contained in a box and the joystick type knob and the
rotary knob of the manual input device and push button switches used for instrument
selection are disposed on an upper surface of the box.

FIG. 1

